

Work Order ID 144205

April 12, 2016 10:18:31 AM

144205

Page 1

Item ID: D206-667-203

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016 Start Qty: 1.00

1

Cust Item ID:

Required Date: 4/28/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

SA

Date: 20160412

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D206-667-243	Rev C (DEO)								
DSI9565	A								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels as per PPP D206-667-203 CHG004								
110	BENDING MACHINE - CROSSTUBES	0.00							
110									
CNC Bend 2	Memo	0.01							
CNC Alpha 160 Bender	Bend tube as per Dwg D206-667-243 using CNC bender program 206L-AF								

DAS
28
9-89

MAY 20 2016

BL

16/04/07

D206-667-203/144205

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QC

0.00

Quality Control

DAS

49

9-89

16/04/11

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Item ID: D206-667-203

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 4/28/2016 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130		0.00							
130	Crosstubes								
Crosstubes									
	Memo	0.02							
	***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: <u> </u> *****								
	1-Drill pilot holes in tube using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill all (3) top holes. Holes facing inboard. Drill and Ream all holes in tube to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243								
	***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: <u> </u> *****								
	2- Drill fwd rivet holes using drill Jig DT8787 fwd as per Dwg D206-667-243. Note: FWD side has 3X top holes facing inboard.								
	3- C'sink holes as per dwg D206-667-243. Allow rivet to sit below surface to compensate for paint.								
	4- Flip tube and switch drilling Jigs from right to left, left to right. Locate Jigs off existing holes using "T" pins. Drill ONLY 2 top holes ONLY plug most bottom hole to prevent accidental drilling. Drill holes and ream using drill Jig DT8583 & DT8584 as per Dwg D206-667-243. Drill only the top (2) holes. Drill & ream the top (2) holes to finish size using drill Jig DT8583 & DT8584 as per Dwg D206-667-243								
	***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING***** , VERIFIED BY: <u> </u> *****								
	5-Drill aft rivet holes using drill Jig DT8787 aft as per Dwg D206-667-243.								

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Item ID: D206-667-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Crosstube - High 206L / L1 / L3 / L4
 Start Date: 4/7/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/28/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Drill only the top (2) holes.

***** ENSURE PROPER JIG POSITIONING BEFORE DRILLING*****
 VERIFIED BY: [Signature] *****

6- C'sink holes as per dwg D206-667-243. Allow rivet to sit below surface to compensate for paint.

7- Scribe tube to identify on the inner chamfer in the cuff D# and B#

8-*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***Debur
 & Inspect for surface damage. Repair damage within limits as per Dwg D206-667-243

0.00

135

135

HandFXtube

Hand Finishing Crosstubes

Memo

0.00

IMMEDIATELY AFTER GRINDING

1- PRESSURE WASH X-TUBE INSIDE AND OUT

2- ALODINE AND ACID ETCH X-TUBE INSIDE AND OUT AS PER QSI005.

BC 16/04/12

BC 16/04/12

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Item ID: D206-667-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Crosstube - High 206L / L1 / L3 / L4
 Start Date: 4/7/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/28/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***	0.00 0.00				1	0		DAS 49 9-89 16/04/10
142 *142* QC Quality Control	QC7-Inspect Chemical Conversion Coat Memo	0.00 0.00				7			DAS 38 9-89 APR 12 2016
170 *170* Outsource2 Outsource process - NDT	Outsource process - NDT per QSI038 4.1 Memo *** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE*** Liquid Penetrant Inspection as per QSI 038Or Issue P/O: 32161 LPI as per ASTM 1417 Level 2 Attach copy of NDT results to work order	0.00 0.00				1			DAS 13 9-89 APR 26 2016

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Item ID: D206-667-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
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 Start Date: 4/7/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/28/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Packaging	0.00							
180									
Packaging	Memo	0.00							
Packaging	*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***								
	Ensure copy of NDT results attached to work order.								
190	QC5- Inspect part completeness to step on W/O	0.00							
190									
QC	Memo	0.00							
Quality Control	*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***								
	Ensure results are as per Dwg D206-667-243								

Handwritten signature: SP 16-04-26

Handwritten: 1
DAS
38
9-89
APR 28 2016

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Item ID: D206-667-203

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

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1

Cust Item ID:

Required Date: 4/28/2016 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start

NR1

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		0.00							DAS
200	SprayPaint					1			41
SprayPaint		0.00							9-89

Memo

*** WEAR LATEX GLOVES WHEN HANDLING CROSSTUBE***

VERIFY BY DAS BATCH # TO MATCH W/O41VERIFY BY 9-89 PART # TO MATCH

W/O _____

MASK SCRIBE B# & P# AND VERIFY

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

PRIME: 134454Start Time: 1200Finish Time: 1200PAINT: 134341Start Time: 400Finish Time: 430

16-4-26

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Item ID: D206-667-203

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 4/28/2016 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC14- Inspect Spray Paint	0.00							DAS 38 9-89
210									
QC		0.00							
Quality Control	Memo								
	Wrap in plastic bag to protect from scratches								
	***VERIFY BY <u>B144205</u> ^{DAS} ₃₈ BATCH # TO MATCH W/O								
	***VERIFY BY <u>B144205</u> ^{DAS} ₃₈ PART # TO MATCH								
	W/O <u>B144205</u>								

MAY 19 2016

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Item ID: D206-667-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Crosstube - High 206L / L1 / L3 / L4
 Start Date: 4/7/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/28/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
240									
QC	Memo	0.00							
Quality Control	***RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS CURED FOR 72HOURS AS PER DWG.***								
	***VERIFY BY <u>B744205</u> ³⁸ ₉₋₈₉ BATCH # TO MATCH W/O								
	***VERIFY BY <u>B744205</u> ³⁸ ₉₋₈₉ PART # TO MATCH W/O								
250	Pick Kit	0.00							DAS 6 9-89
250									
Packaging	Memo	0.00							
Packaging									DAS 28 9-89

MAY 19 2016

APR 30 2016

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Item ID: D206-667-203 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Aft Crosstube - High 206L / L1 / L3 / L4
 Start Date: 4/7/2016 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 4/28/2016 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC4- 100% Inspect kits for completeness	0.00							
260									
QC	Memo BAS	0.00				BAS			
Quality Control	***VERIFY BY 27 9-89 BATCH # TO MATCH W/O					27			
	JUN 06 2016					9-89			
	W/O 27 9-89 PART # TO MATCH								
	JUN 06 2016								
270	Packaging	0.00							
270									
Packaging	Memo	0.00				BAS			
Packaging	Identify and pack for shipping as per PPP D206-667-203					28			
	Location : FG103					9-89			
280	QC21- Final Inspection - Work Order Release	0.00							
280									
QC	Memo	0.00							
Quality Control									

MAY 20 2016

MAY 20 2016

MCS JUN 06 2016

MCS JUN 06 2016

Picklist Print

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Page 1

Work Order ID: 144205

144205

Parent Item: D206-667-203

D206-667-203

Parent Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016

Required Date: 4/28/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:F 05.09.01 Add holes for compatibility with Bell SkidtubesKJ/JLM
 IPP Rev:G 08-06-03 update as per DSI9415 (ECN1198) DD verified by:ec
 IPP Rev:H 08-07-18 remove thread masking in step 12 DD verified by:EC
 IPP Rev:I 08-12-15 add magnobond DD verified by:EC
 IPP Rev J 09.01.06 ECN 08-562 EC verified by:DD IPP REV:K
 11.08.05 PER ECN 11-615 DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN5-10A *AN5-10A* Bolt		Purchased	No			250	Each	86.0000	10	10		DAS 8 9-89	DAS 28 9-8
				<u>Location</u>				<u>Loc Qty</u>					<u>Loc Code</u>
				GA				51					
				122800				51					
				ST338				35					
				m134039				35					
AN5-32A *AN5-32A* Bolt		Purchased	No			250	Each	181.0000	4	4		DAS 6 9-89	DAS 28 9-89
				<u>Location</u>				<u>Loc Qty</u>					<u>Loc Code</u>
				over004				60					
				m133988				60					
				ST336				114					
				m132536				2					
				m133323				4					
				m133769				108					
				ST337				7					
				m131139				7					

D206-667-203 TRN LG014 127308

BL 16/04/07

APR 30 2016

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Work Order ID: 144205

144205

Parent Item: D206-667-203

D206-667-203

Parent Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016

Required Date: 4/28/2016

Start Qty: 1.00

Required Qty: 1.00

AN5-34A

Purchased

No

250

Each

73.0000

4 4

68-6
9
SV0

AN5-34A

Bolt

DAS
28
9-8c

APR 30 2016

DAS
27
9-89

Location

Loc Qty

Loc Code

over004

50

m133577

50

ST336

23

m128634

2

m132857

3

m133363

4

m134370

14

D2873-043

Manufactured

No

220

Each

72.0000

2 2

DAS
41
9-89

16-4-26

D2873-043

Nut Plate Assembly

Location

Loc Qty

Loc Code

LG050

72

137626

10

138890

12

140075

10

141436

40

D2873-045

Manufactured

No

220

Each

40.0000

2 2

DAS
41
9-89

16-4-26

D2873-045

Nut Plate Assembly

Location

Loc Qty

Loc Code

LG050

40

138976

30

141042

10

D2892-1

Manufactured

No

220

Each

0.0000

2 2

DAS
41
9-89

16-5-12

D2892-1

Support

147668

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Work Order ID: 144205

144205

Parent Item: D206-667-203

D206-667-203

Parent Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016

Required Date: 4/28/2016

Start Qty: 1.00

Required Qty: 1.00

D3595-063-450

Manufactured No

220

Each

52.0000

4

4

DAS

D3595-063-450

41
9-89

16-5-12

Rubber Cushion 0.63" wide x 4.50" Long

Location

Loc Qty

Loc Code

FG

22

129907

10

131013

6

88422

6

LG052

30

144012

30

4

MS20601-AD4W10

Purchased

No

220

Each

183.0000

14

14

DAS

MS20601-AD4W10

41
9-89

16-4-26

RIVET

Location

Loc Qty

Loc Code

LG050

171

M128594

4

M128701

17

M133091

50

M133917

50

M134130

50

LG056

12

M132674

12

12

3 -> 1 scrap

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Work Order ID: 144205

144205

Parent Item: D206-667-203

D206-667-203

Parent Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016

Required Date: 4/28/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L5

Purchased

No

250

Each

536.0000

4 4

MS21042L5

Nut

DAS
6
9-89

DAS
28
9-89

APR 30 2016

Location

Loc Qty

Loc Code

GA

136

m127813

136

OVER007

100

m134509

100

ST303

300

m134055

50

m134567

250

MS21920-22

Purchased

No

220

Each

102.0000

4 4

MS21920-22

Clamp

DAS
41
9-89

16-5-12

Location

Loc Qty

Loc Code

LG050

100

M133769

100

LG056

2

M133577

2

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Work Order ID: 144205

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Parent Item: D206-667-203

D206-667-203

Parent Item Name: Aft Crosstube - High 206L / L1 / L3 / L4

Start Date: 4/7/2016

Required Date: 4/28/2016

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0563J

Purchased

No

250

Each

1,551.000

18

18

NAS1149D0563.J

Washer

Location

Loc Qty

Loc Code

GA	293
m125807	2
m133769	291
ST260a	1000
m134497	1000
ST263	159
m134257	159
ST269	99
m128257	99

DAS
28
9-89

DAS
6
9-89

APR 30 2016

DAS
27
9-89

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Item	Qty -243	Part Number	Description
1	X	D206-667-243	CROSSTUBE ASSEMBLY (206L HIGH AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6004-115
FINISHED LENGTH = 104.91±0.020
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER 'D206-667-243' AND BATCH NUMBER ON
INSIDE OF CUFF USING VIBRATING STYLUS.
- 7) WEIGHT: 21.9 lbs
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY,
TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE
TO BENDING IS 6% BASED ON O.D.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER
QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE
D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE
LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE
OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS
SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN
SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

DEO ATTACHED

ECO # K-615

11.07.28

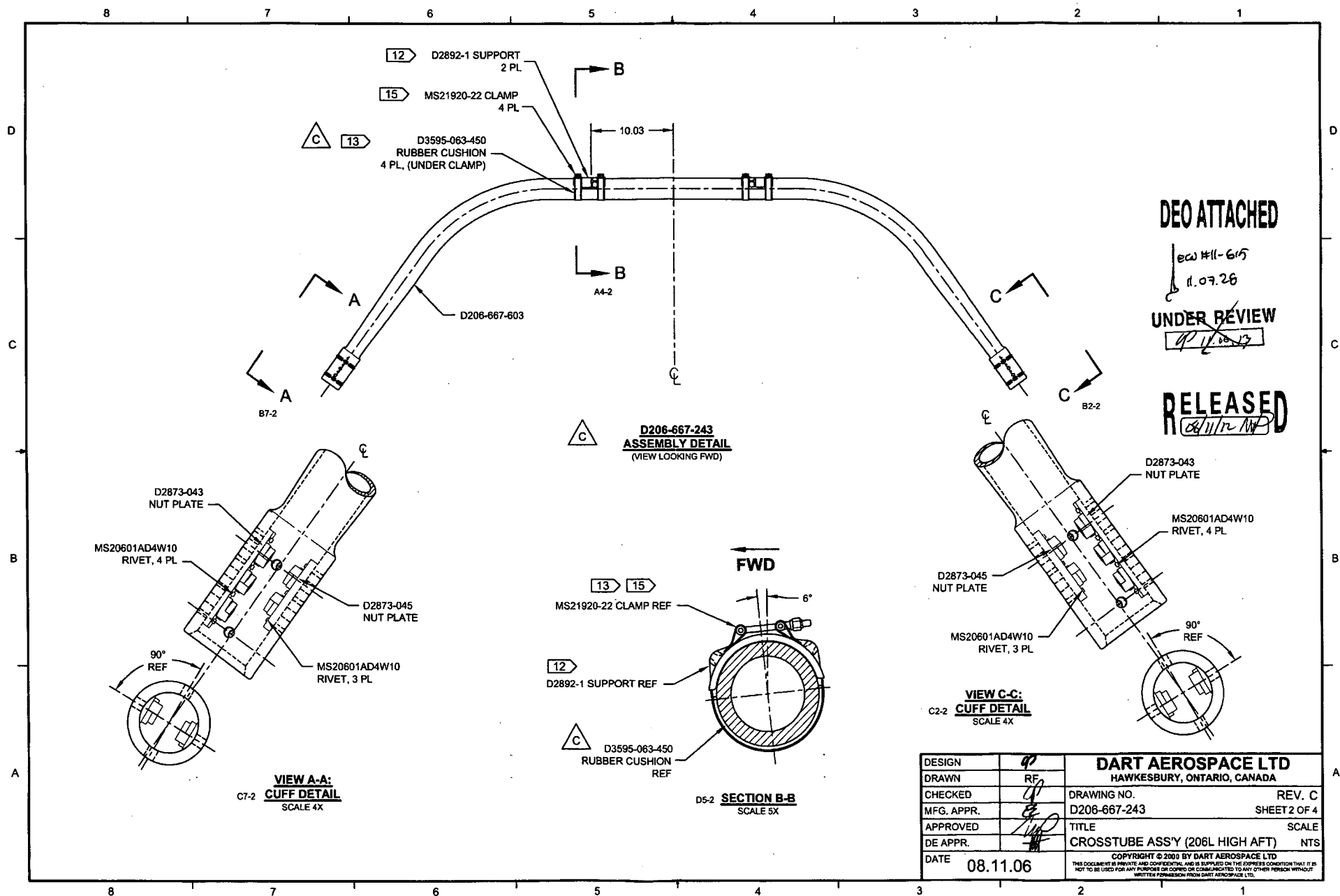
UNDER REVIEW

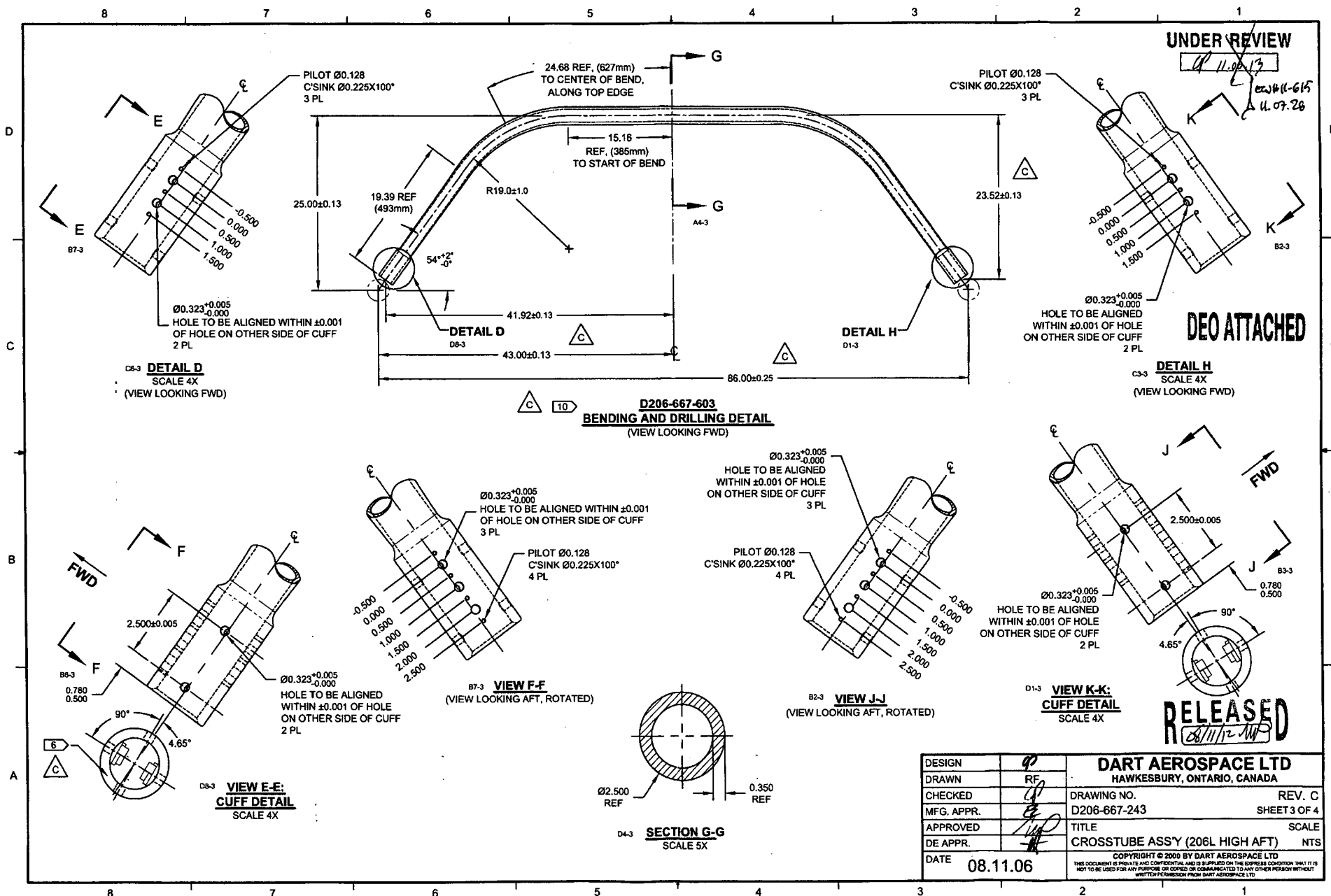
RELEASED

20160412

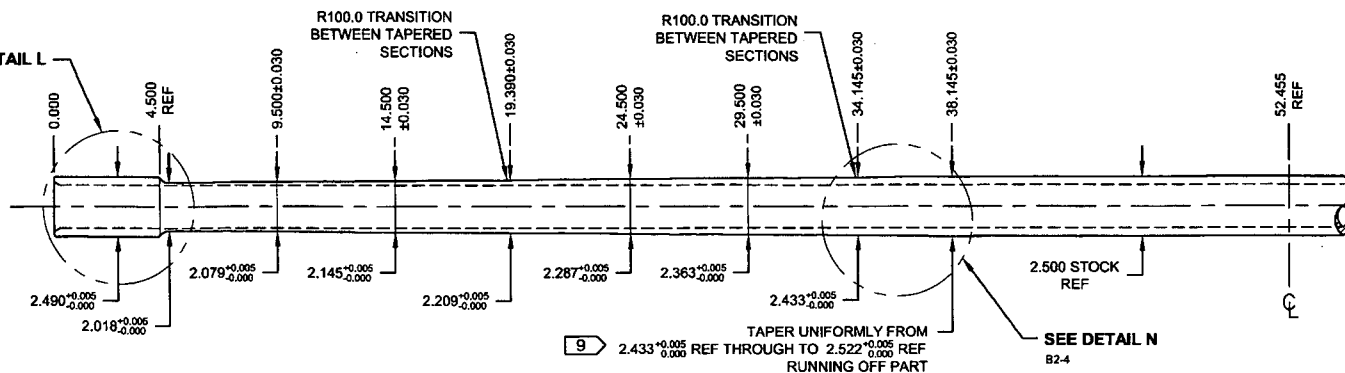
SEA 144205

C	REVISE GENERAL NOTES/PART LIST (ZN D7-1); REORGANIZED VIEWS AND REFORMATTED DRAWING TO CURRENT STANDARDS. D3595-063-450 WAS D2856-400-773 (ZN D6-2 & A5-2); REMOVED REF. & ADD TOLERANCES (ZN 4-3, C5-3, D3-3); RELOCATED FLAG #6 (ZN A8-3) PER NCR 210; MOVED TURNING DETAIL & UPDATED TOLERANCE TO SHEET 4.	RF	08.11.06
B	ADD HOLES AND NUT PLATES FOR COMPATABILITY WITH BHTAA SKUDTUBES	PH	05.07.26
A	NEW ISSUE	CP	00.11.17
REV.	DESCRIPTION	BY	DATE
DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF	DRAWING NO.	REV. C
CHECKED	RF	D206-667-243	SHEET 1 OF 4
MFG. APPR.	RF	TITLE	SCALE
APPROVED	RF	CROSSTUBE ASS'Y (206L HIGH AFT)	NTS
DE APPR.	RF	COPYRIGHT © 2006 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES UNLESS SPECIFICALLY AUTHORIZED BY DART AEROSPACE LTD.	
DATE	08.11.06		

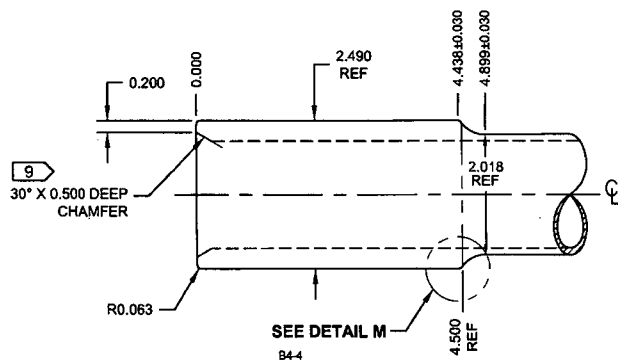




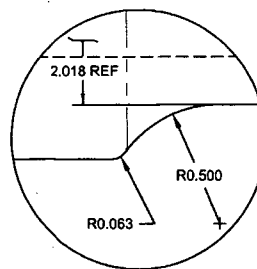
SEE DETAIL L
B7-4



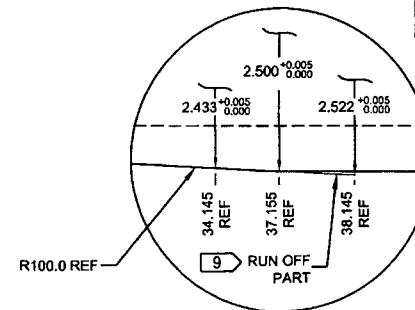
C TURNING DETAIL



C7-4 DETAIL L: CROSSTUBE CUFF
NOT TO SCALE



86-4 DETAIL M: CUFF TRANSITION
NOT TO SCALE



DETAIL N: TAPER RUN-OFF
NOT TO SCALE

UNDER REVIEW

DEO ATTACHED

RELEASED

DESIGN	9	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	UP	DRAWING NO.	REV. C
MFG. APPR.	EP	D206-667-243	SHEET 4 OF 4
APPROVED	UP	TITLE	SCALE
DE APPR.	UP	CROSSTUBE ASS'Y (206L HIGH AFT)	NTS
DATE	08.11.06	COPYRIGHT © 2006 BY DART AEROSPACE LTD	
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DRAWING NO. D206-667-243	TITLE CROSSTUBE ASS'Y (206L HIGH AFT)	REV. C	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D206-667-243-C-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>Q</i>	CHECKED <i>ADS</i>	MFG. APPR. <i>RB</i>	APPROVED <i>MD</i>		DE APPR. <i>#</i>		
DATE 11.07.15	DATE 11.07.20	DATE 11.07.21	DATE 11/07/21		DATE 11.07.21		

PURPOSE:

REPLACE MAGNOBOND WITH PROSEAL.

CHANGE:

IS:

Item	Qty -243	Part Number	Description
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2

WAS:

9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
---	-----	----------------	---

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) TO INSTALL D2892-1 SUPPORT: ABRABE MATING SURFACE OF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. **PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.**

WAS:

- 12) INSTALL D2892-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

RELEASED
2011-07-28
MD

DART SERVICE INSTRUCTION

TO AMEND INSTRUCTIONS FOR CONTINUOUS AIRWORTHINESS ICA-D206-667 Rev. 3 OR LATER

REF. CANADIAN STC: SH01-5
REF. FAA STC: SR01304NY
REF. EASA STC: EASA.IM.R.S.01179

PURPOSE:

The supports on the following crosstubes are now installed using Proseal instead of Magnobond:

D206-667-101 @ CHG 004
D206-667-103 @ CHG 005
D206-667-107 @ CHG 002
D206-667-201 @ CHG 004

D206-667-203 @ CHG 004
D206-667-207 @ CHG 002
D407-667-105 @ CHG 004

CHANGE:

For the crosstubes listed above, section 32.4 of ICA-D206-667 is amended as follows. Use Figures 32-4 to 32-8 of ICA-D206-667 for further reference. For crosstubes of an earlier change number, it is recommended that if the supports are removed, the supports should be reinstalled using the procedure listed below.

32.4 SUPPORT INSTALLATION

- 32.4.1 Locate the area on crosstube for installation of support (ref. Figures 32-4 to 32-8 of ICA-D206-667). For D206-667-101/-103/-107/-201 and D407-667-105 crosstubes, the outward face of the support tabs should be 13.08" (332mm) from the crosstube center. For D206-667-203/-207 crosstubes, the outward face of the support tabs should be 10.03" (255mm) from the crosstube center. Ensure paint finish of crosstube is intact; touch up as required per Chapter 5 (5.3.9) of ICA-D206-667.
- 32.4.2 If present, remove any paint/primer on bottom of supports. Abrade mating surfaces of support and crosstube with 400-grit sandpaper. Saturate a clean cloth with MEK or 4105S Wash'n'Wipe Degreaser or equivalent and wipe until there is no residue.
- 32.4.3 Ensure a layer of 3M Scotch-Weld 2216 B/A Epoxy Adhesive is on the bottom of the support. If required, either apply or touch-up support to have a 0.03" to 0.05" thick layer of adhesive over the entire mating surface. Allow supports to cure for 24 hours.
- 32.4.4 Abrade mating surfaces of support (after cure) and crosstube with 180-grit sandpaper. Saturate a clean cloth with MEK or 4105S Wash'n'Wipe Degreaser or equivalent and wipe until there is no residue.
- 32.4.5 Apply a 0.04" to 0.07" thick layer of Proseal 890 Class B or AMS-S-8802 Class B sealant underneath applicable support and install support.
- 32.4.6 Install the clamps opposite to crosstube support as shown in Figures 32-4 to 32-8 of ICA-D206-667. Install rubber cushions underneath each clamp around the bottom circumference of the crosstube up to the crosstube centerline. Torque clamps 80-100 in·lb (9.0-11.3 Nm). It is acceptable to use smaller or larger sized MS21920-XX clamps than those listed in ICA-D206-667, ensure that after torquing the clamps per this instruction, the nuts are in safety but not bottomed out.
- 32.4.7 Prior to installing crosstube on aircraft, allow supports to cure for 72 hours and recheck torque on clamps.

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED

BY: 
D. SHEPHERD (DE # 02)

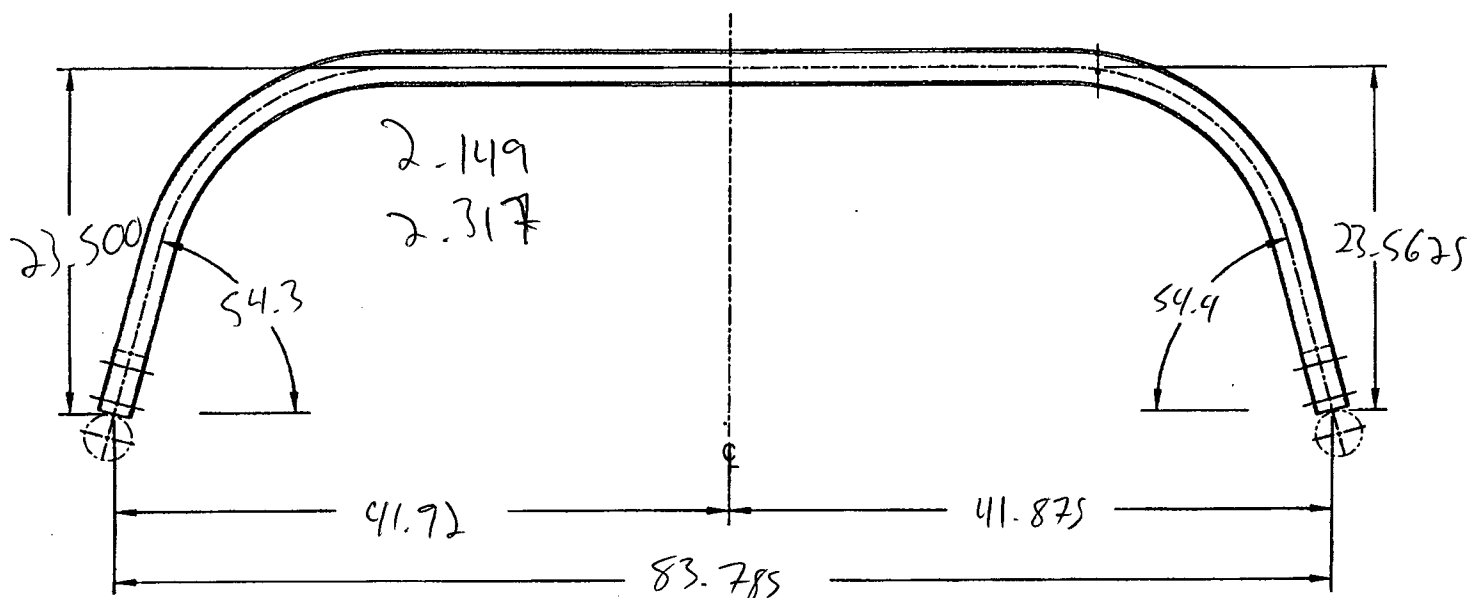
DATE: 11.07.20
CERT. NO.: SH01-5
ISSUE NO.: 3

20160412

A	NEW ISSUE	CP	11.07.15
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN			
CHECKED	ASS	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9565	SHEET 1 OF 1
APPROVED		TITLE	SCALE
DE APPR.		SUPPORT INSTALLATION CHANGE	NTS
DATE	11.07.15	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

DART AEROSPACE LTD	Work Order:	144205
Description: Crosstube High Aft (206L)	Part Number:	D206-667-203
Inspection Dwg: D206-667-243 Rev: C		Page 1 of 1

Required Dimension	Min	Max
Height	23.39	23.65
1/2 Span	41.79	42.05
Angle	54	56
Total Span	83.58	84.1
Bending Passes	8	--
Crushing	--	6%



	Side A	Side B
Bending Passes	13	14
Crushing	3.8%	4.2%
Comments		

20160412

QC15 Inspection	DAS
Date	16/04/11
	49
	9-89

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	
B	09.11.17	Dwg Rev updated	KJ	
C	09.12.14	Dimensions update per Dwg Rev C	KJ	
D	12.04.16	Added bending, crushing dimensions	KJ	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO32161**

Purchase Order Date 4/26/2016

PO Print Date 4/26/2016

Page Number 1 of 2

Order From :
SKYSERVICE
6120 MIDFIELD ROAD
MISSISSAUGA, ONTARIO L5P 1B1
CANADA

VC-SKY001

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905-678-5636

Ship To Contact
Ship To Phone
Ship Via: Delivered
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	71401-45	PROCUREMENT QUALITY CLAUSES	4/26/2016 No 4/26/2016		1.00	\$0.00	\$0.00
	Procurement Quality Clauses A005 right of entry A012 chemical and physical test report A016 personnel qualification A017 raw material identification (as applicable) A026 certification of material conformance A041 quality management system A042 dart notification by supplier A043 retention of quality document						
Line Total:							\$0.00
2	144205	D206-667-203 CROSSTUBE	4/26/2016 Yes 4/26/2016		1.00	\$0.00	\$0.00
	LIQUID PENETRANT INSPECTION AS PER QSI 038 OR LPI AS PER ASTM 1417 LEVEL 2						

Note:

4/26/2016

SP/16-01-2016

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO28070	Customer: Dart Aerospace Ltd.	Dept: NDT YUL	Reference: 32161
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

Work Required:

CARRY OUT NDT ON 3 AFT CROSSTUBES AS PER PO32161

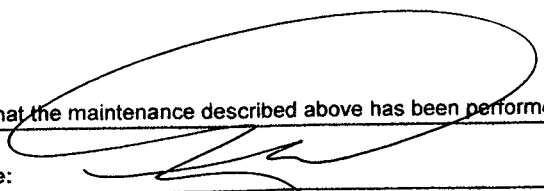
3 AFT CROSSTUBES, ITEM ID# D206-667-203, WORK ORDERS ID# 144205, 144206, 144207

Action Taken:						Date:	Initial/Stamp:
LPI C/O IAW ASTM E-1417M-13 ***NO CRACK FOUND*** PEN.(ZL-37, B#MPO13139), DEV.(SKD-S2,B#MPO11715), EMU.(ZR-10B,B#MPO12376).						APR 26 2016	 
Description	Location	P/N	Qty	Batch	S/N Off	S/N On	

DAS 38 9-89
APR 28 2016

SP 16-04-28

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp 	Date: APR 26 2016
Name: RAFIK MELIKIAN		